CLAIMS

1. A method for detecting lipolytic enzyme or amidase activity in a sample, comprising the steps of:

a) incubating the sample with a substrate having one or two polyunsaturated fatty acyl groups linked through amide or ester bond(s) to allow hydrolysis of the amide or ester bond(s),

b) simultaneously or subsequently incubating the sample with a lipoxygenase to allow formation of a hydroperoxide of the polyunsaturated acid, and

c) detecting the formation of the hydroperoxide.

2. The method of the preceding claim wherein the polyunsaturated fatty acyl group is linoleoyl (18:2).

3. The method of claim 1 or 2 wherein the substrate is a polar lipid.

4. The method of claim 3 wherein the substrate is a galactolipid, particularly digalactosyl diglyceride (DGDG) or monogalactosyl diglyceride (MGDG).

5. The method of claim 3 wherein the substrate is a phospholipid, particularly lecithin, L-a-phosphatidylcholine; dilinoleoyl-phosphatidylcholine.

6. The method of claim 1 or 2 wherein the substrate is a sterol ester, particularly cholesterol linoleate.

7. The method of claim 1 or 2 wherein the substrate is a wax ester, particularly arachidyl linoleate

8. The method of claim 1 or 2 wherein the substrate is a monoester, particularly 1,3-dibutyl-2-linoleyl glycerol, 2,3-dibutyl-1-linoleoyl-glycerol or linoleic acid isopropyl ester.

9. The method of claim 1 or 2 wherein the substrate is an aryl ester, particularly linoleic acid phenyl ester.

10. The method of claim 1 or 2 wherein the substrate is a mono- or diamide, particularly 1,6-diaminohexane linoleic acid diamide.

11. A method of detecting lipolytic enzyme or amidase activity in a test sample, comprising the sequential steps of:

a) incubating the sample with a lipoxygenase and a substrate having one or more polyunsaturated fatty acyl groups linked through amide or ester bonds, to allow formation of a hydroperoxide of the polyunsaturated acid,

b) incubating with a ferrous salt and xylenol orange to allow color generation, and

c) detecting color generation.